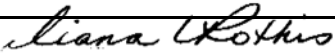


<b>CONTRACT AWARD</b>		<b>STATE OF ALASKA</b> HQ, STATE EQUIPMENT FLEET (Contracting Authority) 2200 E. 42nd Avenue Anchorage, Alaska 99508 (907-269-0800)		<b>CONTRACT AWARD NUMBER</b>	
				<b>1602059</b>	
ORDERING DEPARTMENT			COMMODITY CODE		DATE OF CONTRACT
HEADQUARTERS, STATE EQUIPMENT FLEET 2200 E. 42ND AVENUE ANCHORAGE, ALASKA 99508			NUMBER & PERIOD OF RENEWAL OPTIONS TWO (2) ONE (1) YEAR RENEWAL OPTIONS		9/26/01
			DATE INITIAL CONTRACT BEGINS 9/26/01		PR NO./DATE ASSIGNED
					DATE INITIAL CONTRACT ENDS 9/25/04
CONTRACTOR <b>BOB'S SERVICE INC.</b>			GS VENDOR CODE:		
ADDRESS <b>2009 SPAR AVENUE ANCHORAGE, ALASKA 99501</b>			ISSUED IN ACCORDANCE WITH BID # SEF- 674 DATED: 8/9/01		
CONTRACT NAME <b>STEPHEN JONES</b>			PRICE ADJ. REQ. PRIOR TO EACH RENEWAL: 120 DAYS, PER CATERMS & CONDITIONS		
TELEPHONE NUMBER <b>276-3221</b>			CPI/PPI BASE INDEX POINTS & MO/YR:		
			REVIEW DATE: 1/1/04 RENEWALS EXPIRE (MO/YR): 9/1/2006		
			ESTIMATED VALUE OF INITIAL TERM: \$100,000.00 REBID: 6/1/06		
SEND INVOICES IN DUPLICATE TO: <input type="checkbox"/> Ordering Department OR <input checked="" type="checkbox"/> As Specified in Description					
NOTE: This order constitutes a binding commitment between the State and the contractor listed hereon. Unauthorized modification without the expressed prior approval of the contracting authority will result in a financial obligation on the contractor and/or unauthorized State personnel making the change.					
<b>DESCRIPTION</b>					
<b>THREE YEAR CONTRACT FOR THE PURCHASE OF VAN BODY MOUNTED STEAM GENERATORS</b>					
<b>TABLE OF CONTENTS</b>					
I. STANDARD TERMS & CONDITIONS					
II. SPECIAL TERMS & CONDITIONS					
III. OFFER & CONTRACT AWARD					
IV. BID PRICE SCHEDULE					
V. SPECIFICATIONS					
CONTRACTING AUTHORITY NAME & TITLE <b>DIANA L. ROTKIS, ADMIN MANAGER IV</b>			SIGNATURE 		
TELEPHONE NO.: <b>907-269-0788</b>			FAX NO.: <b>907-269-0801</b>		PAGE 1 OF
<b>IMPORTANT</b> 1. Contract award number and ordering department name must appear on all invoices and documents relating to this order. 2. The State is registered for tax free transactions under Chapter 32, IRS Code Registration No. 92-601185. Items are for the exclusive use of the State and not for resale.					

## SECTION I

### STANDARD TERMS AND CONDITIONS

- 1.0 ACCESSORIES:** When accessories are supplied, they must be certified to be compatible with the rest of the equipment. Certification will be written evidence satisfactory to the State that the accessories are compatible.
- 2.0 AMENDMENTS:** Contract terms shall not be waived, altered, modified, supplemented or amended without prior written approval of the Contracting officer.
- 3.0 ASSIGNMENT:** A contractor may not assign any portion of a contract unless authorized in advance and in writing by the Contracting officer.
- 4.0 BRAND AND MODEL OFFERED:** Unless otherwise specified, when brand names and model numbers are used to specify the type and quality of the goods desired, contractors must clearly indicate the brand names and model numbers they intend to provide.
- 5.0 COMPLIANCE WITH ALL GOVERNMENT REGULATIONS:** The contractor must comply with all applicable federal, state, and borough regulations, codes, and laws, and pay all applicable federal, state, and borough taxes, and is liable for all required insurance, licenses, permits, and bonds. Failure to comply with such requirements shall constitute a breach of contract and shall be grounds for contract cancellation. Damages or costs resulting from noncompliance shall be the sole responsibility of the contractor.
- 6.0 CONFLICT OF INTEREST:** A person employed by the State of Alaska may not seek to acquire, be a party to, or possess a financial interest in, this contract if they are an employee of the administrative unit that supervises the award of this contract or they have the power to take or withhold official action to affect the contract.
- 7.0 DEFAULT:** In case of contractor default, the State may procure the goods or services from another source and hold the contractor responsible for any resulting excess costs and may seek other remedies under law or equity. Alaska Statutes and Regulations provide for suspension and disbarment of non-responsible contractors.
- 8.0 DELIVERY:** All deliveries shall be F.O.B. final destination point with all transportation and handling charges paid by contractor. Responsibility and liability for loss or damage shall remain with contractor until final inspection and acceptance when responsibility shall pass to the State except as to latent defects, fraud and contractor's warranty obligations.
- 9.0 DISCONTINUED ITEMS:** In the event an item is discontinued by the manufacturer during the life of the contract, another item may be substituted, provided that the contracting officer makes a written determination that it is equal or better than the discontinued item and provided that it is sold at the same price or less than the discontinued item.
- 10.0 DISPUTES:** Any disputes arising out of this contract shall be resolved under the laws of Alaska. An appeal or any original action to enforce any provision of this agreement must be in the superior court for the First Judicial District of Alaska.
- 11.0 FORCE MAJEURE (Impossibility to perform):** Neither party to this contract shall be held responsible for delay or default caused by acts of God and/or war which is beyond that party's reasonable control. The State may terminate this contract upon written notice after determining such delay or default will reasonably prevent successful performance of the contract.

**12.0 INDEMNIFICATION:** The Contractor shall indemnify, hold harmless, and defend the contracting agency from and against any claim of, or liability for error, omission or negligent act of the Contractor under this agreement. The Contractor shall not be required to indemnify the contracting agency for a claim of, or liability for, the independent negligence of the contracting agency. If there is a claim of, or liability for, the joint negligent error or omission of the Contractor and the independent negligence of the Contracting agency, the indemnification and hold harmless obligation shall be apportioned on a comparative fault basis. "Contractor" and "Contracting agency", as used within this and the following article, include the employees, agents and other contractors who are directly responsible, respectively, to each. The term "independent negligence" is negligence other than in the Contracting agency's selection, administration, monitoring, or controlling of the Contractor and in approving or accepting the Contractor's work.

**13.0 INSPECTIONS:** Goods furnished under this contract are subject to inspection and test by the State at times and places determined by the State. If the State finds goods furnished to be incomplete or not in compliance with bid specifications, the State may reject the goods and require contractor to either correct them without charge or deliver them at a reduced price, which is equitable under the circumstances. If contractor is unable or refuses to correct such goods within a time deemed reasonable by the State, the State may cancel the order in whole or in part. Nothing in this paragraph shall adversely affect the State's rights as buyer, including all remedies and rights granted by Alaska statutes.

**14.0 INSURANCE:**

14.1 Without limiting Contractor's indemnification, it is agreed that Contractor shall purchase at its own expense and maintain in force at all times during the performance of services under this agreement the following policies of insurance. Where specific limits are shown, it is understood that they shall be the minimum acceptable limits. If the Contractor's policy contains higher limits, the state shall be entitled to coverage to the extent of such higher limits. Certificates of Insurance must be furnished to the Contracting Officer prior to beginning work and must provide for a 30-day prior notice of cancellation, nonrenewal or material change of conditions. Failure to furnish satisfactory evidence of insurance or lapse of the policy is a material breach of this contract and shall be grounds for termination of the Contractor's services. All insurance policies shall comply with, and be issued by insurers licensed to transact the business of insurance under AS 21.

14.2 Proof of insurance is required for the following:

14.2.1 Workers' Compensation Insurance: The Contractor shall provide and maintain, for all employees engaged in work under this contract, coverage as required by AS 23.30.045, and; where applicable, any other statutory obligations including but not limited to Federal U.S.L. & H. and Jones Act requirements. The policy must waive subrogation against the State.

14.2.2 Commercial General Liability Insurance: covering all business premises and operations used by the Contractor in the performance of services under this agreement with minimum coverage limits of \$300,000 combined single limit per occurrence.

14.2.3 Commercial Automobile Liability Insurance: covering all vehicles used by the Contractor in the performance of services under this agreement with minimum coverage limits of \$300,000 combined single limit per occurrence.

14.3 Failure to supply satisfactory proof of insurance within the time required will cause the State to declare the contractor nonresponsible and to reject the bid.

- 15.0 ITEM UPGRADES:** The State reserves the right to accept upgrades to models on the basic contract when the upgrades improve the way the equipment operates or improve the accuracy of the equipment. Such upgraded items must be at the same price as the items in the basic contract.
- 16.0 NEW EQUIPMENT:** Equipment offered in this contract must be new equipment. New equipment means equipment that is currently in production by the manufacturer and is still the latest model, edition or version generally offered. The equipment must be warranted as new by the manufacturer and may not have been used for any purpose, other than display (not demonstration), prior to its sale to the State. The State will not accept remanufactured, used or reconditioned equipment. It is the contractor's responsibility to ensure that each piece of equipment delivered to the State complies with this requirement. A contract's failure to comply with this requirement will cause the State to seek remedies under breach of contract.
- 17.0 PAYMENT:** Payment for agreements under \$500,000 for the undisputed purchase of goods or services provided to a State agency, will be made within 30 days of the receipt of a proper billing or the delivery of the goods or services to the location(s) specified in the agreement, whichever is later. A late payment is subject to 1.5% interest per month on the unpaid balance. Interest will not be paid if there is a dispute or if there is an agreement that establishes a lower interest rate or precludes the charging of interest.
- 18.0 PRICE EXTENSION:** In case of error in the extension of prices in the bid, the unit prices will govern.
- 19.0 PRICES:** The contractor shall state prices according to the requirements of this ITB. Prices quoted for commodities or services must be in U.S. funds and include applicable federal duty, brokerage fees, packaging, and transportation cost to the FOB point so that upon transfer of title the commodity or service can be utilized without further cost.
- 20.0 QUANTITIES:** The State reserves the right to reduce or increase the quantity of items ordered.
- 21.0 SEVERABILITY:** If any provision of this contract is declared by a court to be illegal or in conflict with any law, the validity of the remaining terms and provisions shall not be affected..
- 22.0 STANDARD AND SPECIAL TERMS AND CONDITIONS:** The terms and conditions of this section are standard to State of Alaska, Department of Transportation and Public Facilities, Statewide Equipment Fleet contracts for the purchase of goods. There may also be other special terms and conditions in an Invitation to Bid or Request for Proposal which apply only to this contract. In the event of a conflict between the standard and special terms and conditions, the Special Terms and Conditions take precedence.
- 23.0 SUCCESSORS IN INTEREST:** This contract shall be binding upon successors and assigns.
- 24.0 SUITABLE MATERIALS:** All materials, supplies or equipment offered by a contractor shall be new, unused, of recent manufacture, and suitable for the manufacturer's intended purpose unless the specifications allow for used, rebuilt or remanufactured equipment.
- 25.0 TAXES:** Prices quoted in bids must be exclusive of federal, state, and local taxes. If the contractor believes that certain taxes are payable by the State, the contractor may list such taxes separately, directly below the bid price for the affected item. The State is exempt from Federal Excise Tax because articles purchased are for the exclusive use of the State of Alaska.

**26.0 WARRANTY:** Unless otherwise stated, all equipment shall be new and current model and shall carry full factory warranties. Contractor warrants all goods delivered to be free from defects in labor, material and manufacture and to be in compliance with bid specifications. All implied or expressed warranty provisions of the Uniform Commercial Code apply. All warranties shall be for and benefit the State.

## SECTION II

### SPECIAL TERMS AND CONDITIONS

#### 1.0 DELIVERY:

1.1 **Pre-delivery service:** Prior to delivery, each vehicle, piece of equipment, or attachment shall be serviced and inspected by the dealer or his agent. A certification of this inspection, including the dealer and vehicle identification, check-off of service and inspection performed and the service manager's signature shall be furnished with each vehicle delivered. The vehicle's crank case, differential and transmission, and other fluid compartments shall be filled to the manufacturer's recommended capacity. Fuel tank shall be filled to at least register a minimum 1/4 full on the fuel gauge, unless restricted by the commercial carrier, when the vehicle arrives at the delivery location. The vehicle shall be clean and free from defects when delivered and should be ready for immediate and continued use upon delivery.

#### 1.2 Delivery Receipt:

1.2.1 A delivery receipt will be required for each unit delivered. This form can be of the vendor's own design, but must include the following minimum information: your delivery receipt number, the State Purchase Order (Delivery Order) number (reference the line item number of the vehicle as listed on the Purchase Order, followed by the model and serial number), a space for signature acknowledging receipt by state receiving personnel and date of actual receipt. One copy of this delivery receipt is to be given to the state-receiving agency. The original shall accompany the vendor's invoice to support and properly identify the vehicle delivered.

1.2.2 Vendors are cautioned and advised that such delivery forms or other receiving type documents will not in any way be construed to mean the state has formally and fully accepted unit(s) referenced thereon as complete and meeting every specification set forth. Regional Equipment Managers are to be contacted regarding delivery coordination and contacts.

#### 2.0 PRICE ADJUSTMENTS:

2.1 Contract prices are to remain firm for 120 days after contract award.

2.2 Price adjustments, increases or decreases, for subsequent model year orders may be made by providing the contracting officer evidence, satisfactory to the State, that all of the following conditions exist:

2.2.1 The increase is a result of the increased cost at the manufacturer's level and not costs under the contractor's control, and that;

2.2.2 The increase will not produce a higher profit margin for the contractor than that on the original contract, and that;

2.2.3 The increase affects only the item(s) that are clearly identified by the contractor.

2.2.4 No retroactive price adjustments are allowed.

- 2.3 Some acceptable forms of the evidence referred to above may take the form of a certified invoice from the manufacturer, or an affidavit from an independent professional price tracking firm that is recognized by the industry as reputable and knowledgeable. The contractor must be able to show the difference between the prior years price and the current difference in price being requested.
- 2.4 Price Decreases: During the period of the contract all price decreases, such as fleet rebates, experienced by the contractor must be passed on to the State. A contractor's failure to strictly and faithfully adhere to this clause will be considered a breach of contract.
- 2.5 The State reserves the right to cancel the contract if the contractor fails to properly perform the duties set out herein

### **3.0 LIQUIDATED DAMAGES FOR LATE DELIVERY:**

- 3.1 The State has an immediate requirement for the materials, equipment, or services specified herein. Contractors are urged to give careful consideration to the State's requirements and to the manufacturer's production capabilities when establishing a delivery date(s).
- 3.2 Liquidated damages will be assessed in the amount of 0.1% (0.001) of the unit price, per day, per unit, for failure to meet delivery date as specified by the State. Both the State and the Contractor agree that the above figure represents a reasonable amount for actual damages incurred by the State and is compensatory.
- 3.3 Liquidated damages may be waived if requested in writing and supported by contractual documentation that the contractor had put in place affording a high degree of confidence that the contract delivery schedule would be met, and delays were beyond the contractors control.

### **4.0 WARRANTY:**

- 4.1 **Van Body Mounted Steam Generators:** Unless otherwise stipulated by this ITB, the successful contractor will provide a full, 100% one (1) year warranty as follows:
  - 4.1.1 Full (100%) Warranty Coverage of all components for the first 12 months, from the date the unit is placed into service at the assigned location or after one-year (12-months) after delivery to the FOB point, whichever comes first.
  - 4.1.2 Full (100%) Warranty Coverage includes all cost of labor, parts, freight, transportation, per diem, travel, lubricants, miscellaneous cost, etc., to place the unit in like-new condition.
  - 4.1.3 Should the manufacturer's standard warranty exceed the minimum State warranty requirements, the manufacturer's warranty will run in conjunction with and enhance the State's warranty, then continue for the remainder of its term.
- 4.2 **General Warranty Requirements for all Equipment:**
  - 4.2.1 **Warranty Exceptions:**
    - 4.2.1.1 For clarification, warranty does not apply to normal wear and tear or maintenance items, accident damages, misuse of equipment or failure to operate or maintain equipment as prescribed by vendor/manufacturer.
  - 4.2.2 **Warranty on Attachments:** Does not apply to this bid.

4.2.3 **In-Service Date:**

4.2.3.1 Warranty on vehicles not placed in service immediately upon receipt because of time lag to construct body components and/or installation of special equipment, or due to seasonal usage or other delay, shall be warranted from the date the vehicle is placed in service. The receiving agency shall notify the vendor/manufacture in writing of the actual "in service" date. Notification of the requirement for delayed warranty will be provided on delivery orders whenever possible.

4.2.4 **Authorized Warranty Dealer (Contractor) and Subcontractor:** For the purpose of this bid, the contractor must meet the following applicable requirements:

4.2.4.1 Contractor must:

4.2.4.1.1 possess a current Alaska Motor Vehicle Dealer License pursuant to AS 08.66.010 through AS 08.66.090, when offering motor vehicles, trailers or semi-trailers, and;

4.2.4.1.2 be a manufacturer(s) authorized warranty service dealer for each unit, and;

4.2.4.1.3 have the capability of providing warranty servicing and repair work within the State of Alaska, with certified warranty repair facilities in Anchorage and Fairbanks at a minimum.

4.2.4.2 Contractor, if appropriate, shall submit the name, address, Alaska business license and of any subcontractor who will provide the warranty servicing and repair work referenced in paragraph 4.1 above. The Contractor must also provide contractual documentation or agreements with the subcontractor insuring the state that the subcontractor will provide complete contract performance on behalf of the contractor as set forth in this ITB and verification that the work provided will maintain manufacturer's warranty requirements.

4.2.5 **Warranty Claims:**

4.2.5.1 Warranty will be provided at the unit's assigned (in-service) location as shown in this ITB, Section V - Bid Price Schedule. Because of the remote location of some equipment it is not always practical to deliver equipment to authorized warranty repair facilities. In these cases, the vendor may perform warranty work at the state's location or, the State of Alaska, at its discretion, reserves the right to perform the warranty work and be reimbursed by the vendor.



- 4.2.5.2 The State of Alaska has established a warranty procedure whereby the vendor is to be notified via letter, telex, fax, telegram, etc. that warranty work needs to be performed. If time is of the essence, a telephone call confirmed by one of the above written procedures may be utilized. The vendor must notify the state immediately that it will begin to perform the warranty work at the equipment location within 48 hours from receipt of written notification. The State may, at its discretion, proceed to make warranty repairs with its own work force in the case of emergency situation or to preclude excessive downtime (greater than 48 hours).
- 4.2.5.3 Failure to notify the State, that the vendor intends to begin to perform warranty work promptly under this paragraph, by the end of the business day following the state's notification that work is required to be performed, is considered a contractual breach.
- 4.2.6 The vendor will be invoiced for required warranty work performed by the state. The shop rate to be charged for warranty work performed by the state will be **\$73.00** per hour. Labor hours to be charged will be in accordance with appropriate flat rate manuals. If flat rate manuals do not cover the labor operation, actual repair time will be used. Warranty work performed by state shop personnel at locations where no shop personnel are permanently stationed may be subject to travel expenses incurred involving those warranty repairs.
- 4.2.7 Factory Recall:
  - 4.2.7.1 Nationwide factory recall or product update programs are the responsibility of the vendor and/or manufacturer. The State will attempt to bring affected equipment to an authorized repair facility. However, because of the remoteness of some equipment this is not always practicable or economical. In such cases, factory recall and modification work will be handled the same as warranty work. Factory recall notices sent to the state should, in addition to serial number, include model, year, and dealer from whom purchased.

## 5.0 PUBLICATIONS:

- 5.1 (Note: All publications are to be provided by the successful contractor as soon as available from OEM.)
- 5.2 **Service Manuals:**
  - 5.2.1 Body, chassis and electrical, including wiring diagrams
  - 5.2.2 Electrical troubleshooting
  - 5.2.3 Wiring diagrams
  - 5.2.4 Service specifications
- 5.3 **Parts Manuals:** Complete set(s) (microfiche, books or CD) to include all components.
- 5.4 **Operator's Manuals:** Complete set(s) to include all components.
- 5.5 **Quantities:** Refer to Section V- Bid Price Schedule.
- 5.6 **Manuals:** To be delivered to, and receipt signed by:
  - 5.6.1 Person(s) as noted in the Bid Price Schedule.

5.7 **Service Bulletins, Etc.:** The successful contractor must provide appropriate service bulletins, technical support bulletins, service letters, product support bulletins, and/or any other information type notifications that are sent out to the vendor or used by the manufacturer in the maintenance and report of the vehicle, equipment or attachments being provided. The intent of this clause is that the State of Alaska be provided notification of any and all changes or improvements that may affect the maintenance, reliability, longevity, and safety of our equipment. This information will be provided as soon as possible to the following location(s):

5.7.1 Persons as noted in the Bid Price Schedule.

## 6.0 **INSPECTIONS:**

6.1 The State's inspection of all materials and equipment upon delivery is for the sole purpose of identification. Such inspection shall not be construed as final or as acceptance of the materials or equipment if materials or equipment do not conform to Contract requirements. If there are any apparent defects in the materials or equipment at the time of delivery, the State will promptly notify the Contractor thereof. Without limiting any other rights of the State, The State at its option, may require the Contractor to:

6.1.1 Repair or replace at Contractor's expense, any or all of the damaged goods,

6.1.2 refund the price of any or all of the damaged goods, or

6.1.3 accept the return of any or all of the damaged goods.

6.2 Costs of remedying all defects, indirect and consequential costs of correcting same, and/or removing or replacing any or all of the defective materials or equipment will be charged against the Contractor.

7.0 **MANUFACTURER'S REBATE (INCENTIVES):** In any circumstance during or prior to completion of the contract, whereupon the State of Alaska becomes eligible to receive a rebate for any vehicle purchased under this contract, it shall be the CONTRACTOR'S responsibility to inform the Contracting officer in writing and to advise the procedures for obtaining such rebates.

8.0 **REPLACEMENT PARTS:** The State of Alaska shall expect the manufacturer to have adequate stocks of replacements parts available to service State vehicles and equipment and to make delivery within a reasonable time of all normal replacement parts to their dealers who may service State vehicles and equipment.

9.0 **BRAND NAME SPECIFICATION:** For purposes of this ITB, certain vehicle accessories are specifically identified by brand name and model/part number. Only the listed brand name and model/part numbers are acceptable. Substitutes shall be not allowed.

10.0 **ADDITIONS OR DELETIONS:** The State reserves the right to add or delete items, agencies or locations as determined to be in the best interest of the State. Added items, agencies or locations will be related to those on contract and will not represent a significant increase or decrease in size or scope of the contract. Such additions or deletions will be documented via mutual agreement, will be at prices consistent with the original bid price margins, and will be evidenced by issuance of a written contract change notice from the Contracting officer.

11.0 **CONTRACT ADMINISTRATION:** The administration of this contract, including any/all changes, is the responsibility of the Contracting Officer, HQ State Equipment Fleet.

**SECTION III**  
**OFFER AND CONTRACT AWARD**  
**CONTRACTOR INFORMATION**

BOB'S SERVICES INC.  
(Company Name)

By :STEPHEN J. JONES  
(Authorized Representative)

2009 SPAR AVENUE  
(Address)

SALES  
(Title)

ANCHORAGE, ALASKA 99501  
(City) (State) (Zip)

792-3222 PH, 276-1972 FX  
(Phone and Fax No.)


*(NOTE: Contractor Signature on File)*

**CONTRACT AWARD**  
**(FOR STATE OF ALASKA USE ONLY)**

An Intent to Award was previously issued to you for this procurement on July 30, 2001 and the time for protest is completed. Accordingly, Contract No. SEF-674 is hereby awarded on August 9, 2001 between Bob's Services, Inc. and the State of Alaska, Department of Transportation and Public Facilities, Statewide Equipment Fleet.

**THIS IS NOT A NOTICE TO PROCEED. BILLABLE WORK SHALL COMMENCE WITH RECEIPT OF A CONFIRMING DELIVERY ORDER NUMBER OR ORDER.**

Authorized Signature



Contracting Officer (Date)

**SECTION IV**  
**BID PRICE SCHEDULE**

Vapor Corp Mdl 4992 Steam Generator Installed on an **\$69,978.00**  
Hewett Lucas Insulated Van Body Per Specification #570,  
equipped with a 600 gallon water tank,  
and to include all Standard Equipment and Accessories as  
Advertised in manufacturer's specification sheet of model offered  
unless otherwise specified in the attached specification #570.

Additional price to provide an 800 gallon water tank in lieu of  
the standard 600 gallon water tank. **\$201.00**

FOB: DOT/PF, SEF Equipment Maintenance Shop  
4801 Boniface Parkway  
**ANCHORAGE**, Alaska 99507

Required Manuals: To include two (2) complete sets delivered to the  
Respective Regional/District Manager/Superintendent:

Central Region: DOT/PF, Lanny Palmer – SEF Equipment  
Manager, 4801 Boniface Parkway, Anchorage, Alaska 99507

Northern Region: DOT/PF, Steve McKinsty – SEF Equipment  
Manager, 2301 Peger Road, Fairbanks, Alaska 99709-5316

Southeast Region: DOT/PF, Duke Davis – SEF Equipment  
Superintendent, 6860 Glacier Highway, Juneau, Alaska 99801

Western District: DOT/PF, Patrick Kelliher – SEF Equipment  
Superintendent, PO Box 1048, Nome, Alaska 99762

South-central District: DOT/PF, Aurora Meller – SEF Equipment  
Superintendent, PO Box 507 Valdez, Alaska 99686

Weight Verification Slip: Not Required

**REQUIRED DELIVERY: NO LATER THAN 240  
DAYS ARO**

**FOB: ANCHORAGE ALASKA**

Additional price for **Pilot Inspection (price per person)**,  
as per spec item 8.0: **\$NO CHARGE**

Additional price for **Training**, as per spec item 9.8: ----- **\$2,000.00 FAIRBANKS**  
**\$1,800.00 ANCHORAGE**

**END OF BID PRICE SCHEDULE**

## SECTION V – SPECIFICATIONS

### SPECIFICATION #570 Steam Generator, Van Body Mounted July 12, 2001

#### GENERAL SPECIFICATION:

It is the purpose of this specification to describe a new, and of the manufacturer's latest current model and design, steam generator installed in an insulated van body.

The unit will be mounted by State personnel onto an existing State owned truck chassis which will provide hydraulic power to the hydraulic motor.

Unit to include all standard equipment and accessories as advertised in manufacturer's specification sheet of model offered, unless otherwise specified herein.

#### APPLICATION:

General steam thawing including culvert opening. Unit will be subject to varying terrain and weather conditions with temperatures ranging from minus 50 degrees Fahrenheit.

#### DOCUMENTATION REQUIRED:

A basic manufacturer's product brochure describing the unit being bid is to be provided.

In addition, specifications marked with an asterisk (\*) require supporting documentation in the form of the product brochure, manufacturer's technical data sheet, or a letter of clarification, which must indicate specifically what the contractor intends to supply in regard to said items, and/or how the specifications will be met. **In order to help prevent technical errors, following each asterisked is space that may be used to address all of the asterisked items. It is required that a letter of clarification or the space behind the asterisked items be used to supply the required information.**

#### ACCEPTABLE UNITS:

*TEXSTEAM* Model 4992 Series or *VAPOR CORP* Model 4992. Provided all specifications are met.

#### 1.0 STEAM GENERATOR:

##### 1.1 General:

- 1.1.1 (\*) Continuous coil type steam generator with minimum 40 horse power capacity. (*Contractor to provide 40 BHP*)
- 1.1.2 (\*) To provide a rated evaporative capacity of minimum 1,000 pounds of water per hour with a 20 percent overload capacity. (*Contractor to provide 1380 lb/HR from 212 °F*)

- 1.1.3 (\*) Heat Output: Minimum of 1,300,000 BTU per hour. (*Contractor to provide 141,000 BTU/US Gallon, No 2 CSG*)
- 1.1.4 To be capable of providing full steam pressure within five (5) minutes after starting, from cold.
- 1.1.5 To be securely mounted to van body frame but with capability for ease of removal for maintenance.
- 1.2 Burner:
  - 1.2.1 Shall be pressure atomizing type, with a single 9 GPH nozzle.
  - 1.2.2 The burner (fuel sprayhead) to be capable of burning not greater than #2 diesel/fuel oil.
  - 1.2.3 Incoming air to the burner to be delivered to the burner by a multi-vane blower wheel. An air duct, with protective screen, of galvanized or stainless steel shall draw outside air as per attached drawing at the end of these specifications.
  - 1.2.4 Oil burner pump to provide a minimum pressure of 70 pounds with a maximum of 300 pounds pressure at the burner.
  - 1.2.5 Ignition:
    - 1.2.5.1 Unit to include two (2) separate 12 volt DC electronic ignition modules (firing at the same time) to provide automatic control features for ignition. To be *HUNTER* CDI brand.
    - 1.2.5.2 The ignition modules are to be mounted as to prevent excessive heat from the dome (shielding and/or location is required).
    - 1.2.5.3 The 12 volt DC power source is to be a fused circuit that is separate from the van body's lighting system.
- 1.3 Motor:
  - 1.3.1 (\*) Unit is to be provided with a hydraulic motor of sufficient horse power to operate the blower, fuel pump, water pump and other accessories needed for proper function of the steam generator. (*Contractor to provide MG Series Torgmotor supplied by boiler manufacture. It was noted that proper HP function will depend on correct hydraulic PSI and flow being provided*)
  - 1.3.2 The hydraulic pump, valving, hoses and fittings going to the motor will not be required as part of this package.
  - 1.3.3 If "V" belt system, to include a spring loaded tensioner.
- 1.4 Gauges:
  - 1.4.1 All gauges listed below are to be fluid filled and a minimum of three (3) inches in diameter.
  - 1.4.2 Location for gauges listed below are to be as per drawing shown at the end of these specifications.
  - 1.4.3 Steam Pressure Gauge - To indicate the steam pressure on the steam boiler.

- 1.4.4 Water Pressure Gauge - To indicate the pressure of the feed water.
- 1.4.5 Fuel Pressure Gauge - To indicate the pressure of the fuel to the sprayhead nozzle.
- 1.5 Peep Hole Glass - To permit visual inspection of fire from the burner.
- 1.6 Valves and Controls:
  - 1.6.1 Coil Blowdown Valve - Used for blowing out the sediment in the steam generating coils. To vent through the floor, between the frame rails.
  - 1.6.2 Fuel and Water Bypass Control:
    - 1.6.2.1 A fuel pressure regulating valve is to be located as per drawing at the end of these specifications.
    - 1.6.2.2 Will bypass the flow of fuel to the burner in the absence of water or if the water pump output drops below 80% of its rated output.
    - 1.6.2.3 Maintains the desired operating steam pressure. When the steam pressure is reached, the flow of water through the control is bypassed back to the water supply tank, which also causes the fuel to be bypassed back to the fuel tank.
  - 1.6.3 Fuel Manifold:
    - 1.6.3.1 Outlet for fuel pressure lines to the fuel metering valve, fuel pressure regulator, fuel sprayhead, steam temperature limit control, fuel and water bypass regulator, and automatic damper operating cylinder.
  - 1.6.4 Fuel Manual Bypass Valve - Used as an ON/OFF valve to manually control the fuel pressure to nozzle.
  - 1.6.5 Fuel Sprayhead:
    - 1.6.5.1 To hold the fuel spray nozzle and is adjustable for proper position of spray cone.
    - 1.6.5.2 To prevent dribbling of fuel from the nozzle when the steam boiler is shut down.
    - 1.6.5.3 To be accomplished by a spring-loaded fuel cut-off valve seating whenever the fuel pressure drops below 75 PSI (pounds per square inch).
  - 1.6.6 Fuel Pump - To deliver fuel to the burner for combustion.
  - 1.6.7 Safety Valve - Set and sealed at 250 PSI, to open and relieve the steam. To vent through the floor, between the frame rails.
  - 1.6.8 Dual Spark Plugs - To give a continuous electric spark for the ignition of the fuel.

- 1.6.9 Steam Temperature Limit Control - To shut down the burner by bypassing the fuel should the temperature of the steam become excessive.
- 1.6.10 Water Pump - To deliver water to the steam boiler for evaporation into steam. To also include drip pan under water pump packing.
- 1.6.11 Water Relief Valve - To unload water at excessive pressure. To be set at approximately 575 PSI.
- 1.6.12 Generator Supply Outlet:
  - 1.6.12.1 To include a minimum 1¼ (1.25) inch opening located lower curbside equipped with a 1¼ (1.25) inch ball valve with rubber suction hose leading through the van body floor to discharge directly to the outside away from body and/or chassis components.
- 1.6.13 Air Blower:
  - 1.6.13.1 To include a tachometer that shows a red line or working range. Tachometer is to be located as per drawing at the end of these specifications.
  - 1.6.13.2 To also include a grease zerk on the blower shaft, remote mounted for easy access.
- 1.6.14 Valves:
  - 1.6.14.1 Valves that are to be on heated side to be steam rated.
  - 1.6.14.2 Valves are to be located for quick, easy, and safe access.
- 1.6.15 Combined overflow and drain lines going through the van body floor is to be sealed preventing cold drafts from making contact with water pipes or the tank.
- 1.7 Mounting:
  - 1.7.1 To include adequate subframe to isolate the unit from vibration and/or combustible surfaces.
  - 1.7.2 The steam generator shall be mounted with center of gravity approximately six (6) feet from rear of rear door.

## **2.0 EXHAUST STACK:**

- 2.1 To be minimum 12 inch diameter extending through van body roof.
- 2.2 An automatic rain cap controlled by fuel or hydraulic pressure shall be included. To provide full open or full closed position. The speed of the opening shall be at a controlled rate to prevent damage caused by too high of a speed.
- 2.3 Exhaust stack with cap shall not protrude more than five (5) inches above the roof.
- 2.4 Construction materials of the exhaust stack system including stack, cap and roof connection shall be of stainless steel.
- 2.5 To be weather tight.



### 3.0 AIR INTAKE:

- 3.1 Outside air intake for the burner shall include a ducted intake with a minimum opening of 6x9 inches and is to include a screen that has ½ (0.5) inch openings. The unit is to be designed as per the previous 1998 units. A sketch is available upon request from the SEF/HQ office.

### 4.0 WATER TANK:

- 4.1 To include a water supply tank of approximately 600 gallon capacity.
  - 4.1.1 **An upcharge price is also required in the Bid Price Schedule for an 800 gallon capacity tank in lieu of the 600 gallon tank.**
- 4.2 Rectangular in shape, between 48 and 60 inches in height.
- 4.3 Construction:
  - 4.3.1 Construction of tanks to be accomplished by a qualified company with experience in the production of tanks.
  - 4.3.2 Polypropylene or fiberglass.
  - 4.3.3 If Polypropylene:
    - 4.3.3.1 Material shall be PT2 polypropylene sheet stock. This material shall be non-corrosive stress relieved thermo-plastic.
    - 4.3.3.2 Outside walls, top and bottom shall be constructed ½ (0.5) inch thick.
    - 4.3.3.3 Baffles/partitions with longitudinal and transverse partitions shall be of minimum 3/8 (0.375) inch thick.
    - 4.3.3.4 All polypropylene welding of joints and seams shall be nitrogen welded.
    - 4.3.3.5 Contact:  
United Plastics Fabricating, Inc.,  
165 Flagship Drive,  
North Andover,  
Massachusetts 01845  
Richard Lyons - Industrial Sales Engineer,  
Phone: (508)975-4520 extension #236
  - 4.3.4 If Fiberglass:
    - 4.3.4.1 Fiberglass lamination and fabrication shall consist of:
      - 4.3.4.1.1 Resin type shall be orthophalic polyester resin.
      - 4.3.4.1.2 Fabrics shall be 1 ½ (1.5) ounce fiberglass mat and 24 ounce woven roving.
      - 4.3.4.1.3 Core materials shall be ¾ (0.75) inch AC plywood or type 60 PVC foam core *DIVINYCELL*.

- 4.3.4.1.4 Gel-coat shall be *NPG* Isothalic polyester gel-coat.
  - 4.3.4.2 Lay-up schedule shall be:
    - 4.3.4.2.1 Fabricate tank from core materials.
    - 4.3.4.2.2 Hand-lay up procedure of fabric and resin lay-up performed on exterior of tank consisting of one (1) layer of 1 ½ (1.5) ounce mat, one (1) layer of 24 ounce woven roving, one (1) layer of 1 ½ (1.5) ounce mat, saturated with orthophalic resin. Interior lay-up consisting of two (2) layers of 1 ½ (1.5) ounce mat (doubled on all corners).
    - 4.3.4.2.3 Following cure, baffles installed and 20 mils of Isothalic polyester gel-coat applied.
  - 4.3.4.3 Contact:

Plaschem Supply & Consulting,  
1415 Spar Ave,  
Anchorage, AK 99501,  
Randy Apling - Plant Manager,  
Phone: (907)274-5505
- 4.4 Tank shall be tested for maximum strength and integrity.
- 4.5 To be located at the forward end of the van body.
- 4.6 To be securely strap mounted to van body frame to prevent the tank from shifting forward, rearward or side to side.
- 4.7 To be removable from the rear of the van.
- 4.8 Baffles (Partitions):
  - 4.8.1 To include a minimum of three (3) each, full height, equally spaced, heavy duty partitions.
  - 4.8.2 All partitions shall be equipped with vent and air holes to permit movement of air and water between compartments.
  - 4.8.3 The partitions shall be designed to provide maximum water flow.
  - 4.8.4 All swash partitions interlock with one another and are to be welded (fiberglassed if fiberglass construction) to each other as well as to the walls of the tank.
- 4.9 Sight Gauge: To include a 1 ½ (1.5) inch inside diameter, of clear plastic or impact resistant tubing, extending approximately four (4) inches from bottom to within four (4) inches to the top of the tank.

- 4.10 Fill:
  - 4.10.1 Opening to be minimum six (6) inch diameter, latching type, flush mounted to the top of the tank.
  - 4.10.2 To include piping with a one (1) inch ball valve located approximately four (4) inches above floor level at the edge of the door opening (for ease of filling by ground personnel, utilizing a quick connection supplied and installed by the State.
  - 4.10.3 System to incorporate a heavy-duty flange mounted automatic float valve type shut-off system, *MACDONALD-MILLER* Model 21 or equivalent, to stop filling process when tank is full.
- 4.11 Overflow Vent:
  - 4.11.1 To include a minimum two (2) inch I.D. overflow vent at top of tank equipped with minimum two (2) inch I.D. schedule 40 polypropylene pipe draining below the underside of the van body.
- 4.12 Boiler Feed Outlet:
  - 4.12.1 To include 1¼ (1.25) inch I.D. outlet at streetside lower corner of tank equipped with a 1¼ (1.25) inch I.D. drain valve for connection to the boiler feed line.
  - 4.12.2 Boiler feed line to include 1¼ (1.25) inch I.D. rubber suction hose, minimum 18 inches in length (for vibration protection) connected to 1¼ (1.25) inch I.D. galvanized pipe leading to the steam generator where it will again be equipped with a rubber suction hose of the same diameter and length.
- 4.13 Water Treatment Device:
  - 4.13.1 To include an *AQUADENE* #KH300 Auto Dispenser or equivalent connected between the boiler feed outlet and the boiler water pump.
  - 4.13.2 To be mounted to reduce vibration to the water treatment device.
  - 4.13.3 To include a ¼-turn ball valve between the tank and the filter, for servicing of the filter.
- 4.14 Valves:
  - 4.14.1 To be ¼ (one-quarter) turn ball, corrosive resistant.
  - 4.14.2 Valves are to be located for quick, easy, and safe access.
- 4.15 Fittings:
  - 4.15.1 All fittings incorporated with the fill, overflow including drain, and generator supply outlet, are to be heavy duty, steel or stainless steel, unless otherwise specified herein.
- 4.16 Combined overflow and drain lines going through the van body floor is to be sealed preventing cold drafts from making contact with water pipes or the tank.

## **5.0 FUEL SUPPLY:**

- 5.1 A fuel tank including supply pump, filter, suction and return lines to the steam generator's fuel pump will be supplied and installed by the State shop, after delivery.

## **6.0 HOSE AND HOSE REELS:**

- 6.1 Hose Reel Assembly(s):
  - 6.1.1 To be *HANNAY* 6000 Series Model 6028-30-31.
  - 6.1.2 To be chain and sprocket drive powered by a 12 volt D.C. electric motor with sealed operating switch and solenoid.
    - 6.1.2.1 Auxiliary crank rewind to be supplied (in case of electric failure).
  - 6.1.3 Outlet Riser: To be one (1) inch I.D. female IPT (iron pipe thread).
  - 6.1.4 Swivel Joint(s):
    - 6.1.4.1 To include a one (1) inch I.D. IPT, 90 degree female, steel or malleable iron, swivel joint inlet connection, *HANNAY* #29.8551 Super Swivel Joint with AFLAS Packing.
    - 6.1.4.2 To be functional with operating pressures up to minimum 500 PSI and a long term service life at minimum 400 degrees Fahrenheit.
  - 6.1.5 To include bronze bushings on shafts and swivel joints.
  - 6.1.6 Plumbing from steam generator to hose reel(s) to include; securely mounted, minimum schedule 80 pipe, heavy-duty insulated to protect against operator burns, pipe with high pressure fittings, flexible coupling at hose reel, and ¼-turn shut off ball valve that is steam rated, 300 PSI minimum. Any flexible hose that is used shall be stainless steel braided with welded ends, rated at 500 degrees Fahrenheit, and to include the insulation as above.
  - 6.1.7 Fairleads:
    - 6.1.7.1 The curbside mounted hose reel is to include a heavy-duty four (4) roller fairlead system to help protect the hose from rubbing on the van body edges and to help placing the hose back onto the reel.
    - 6.1.7.2 The fairleads are to include bushings.
- 6.2 Hose:
  - 6.2.1 To be smooth cover steam hose, *GOODYEAR* FLEX STEEL XL250, or State approved equivalent.
  - 6.2.2 Rated at 425 degrees Fahrenheit at 250 PSI.
  - 6.2.3 Outlet end of hose to be one (1) inch I.D. female IPT.
- 6.3 Hose reel assembly #1:
  - 6.3.1 To be equipped with 250 foot x ¾ (0.75) inch I.D. hose.
  - 6.3.2 Located with access from side access door.

- 6.4 Hose reel assembly #2:
  - 6.4.1 To be equipped with 100 foot x  $\frac{3}{4}$  (0.75) inch I.D. hose.
  - 6.4.2 Located with access from the rear of the van body.

## **7.0 VAN BODY:**

- 7.1 General: It is the intent and purpose of these specifications to describe a fully assembled, aluminum, insulated, van body with side door and full opening rear double doors, meeting or exceeding the following minimums.
- 7.2 Dimensions:
  - 7.2.1 Length: 16 feet, overall.
  - 7.2.2 Width: 96 inches, overall.
  - 7.2.3 Height (Interior): Between 75 and 80 inches (floor to ceiling).
- 7.3 Walls:
  - 7.3.1 Exterior - Minimum .040 (forty-thousands) inch thick smooth mill finish aluminum, one (1) piece, side sheets.
  - 7.3.2 Studding - Minimum  $1\frac{1}{2}$  x  $1\frac{1}{2}$  inch, aluminum "I" or "H" beam or minimum 5 x 1- $\frac{3}{16}$  inch hat section on 16 inch centers.
  - 7.3.3 Insulation – Urethane, for maximum "R" rating.
- 7.4 Ceiling:
  - 7.4.1 Exterior - Minimum .040 (forty-thousands) inch thick smooth mill finish aluminum, one (1) piece sheet.
  - 7.4.2 Rafters - Minimum 2 x 2 inch aluminum "I" or "H" beam or minimum 5 x 1- $\frac{3}{16}$  inch hat section roof bows on minimum 16 inch centers butting on full height roof rail.
  - 7.4.3 Insulation - Urethane for maximum "R" rating.
- 7.5 Frame:
  - 7.5.1 Support Beams:
    - 7.5.1.1 Cross members, full length, steel, minimum four (4) inch "I" beams on 12 inch centers.
    - 7.5.1.2 Main beams, full length, steel, minimum five (5) inch.
    - 7.5.1.3 Cross members and main beams to be of sufficient strength to adequately support weight of steam generator and associated components and facilitate installation of body on desired truck chassis.
- 7.6 Flooring:
  - 7.6.1 To include To include minimum 1- $\frac{1}{8}$  (1.125) inch thick (nominal) tongue and grove hardwood flooring covered with minimum  $\frac{3}{16}$  (0.1875) inch thick, steel, treadplate.
  - 7.6.2 Insulation - Urethane, minimum three (3) inches thick.

- 7.6.3 Undercoating: All exposed crossmembers and main beams.
- 7.7 Doors:
  - 7.7.1 Shall include heavy duty with corrosion resistant hardware.
  - 7.7.2 Curbside entrance door opening to be approximately 42 inches wide x minimum 72 inches high. Location to be between 6 to 12 inches from rear of water tank.
    - 7.7.2.1 A sketch showing required door location (same as previous bid) is available upon request).
  - 7.7.3 Rear entrance doors to be full width opening (270 degree) double doors.
  - 7.7.4 Hardware:
    - 7.7.4.1 The curbside entrance door and the rear main entrance door are both to be equipped with *POLAR* hardware that includes an internal release (freezer type) that is located approximately 36 inches above the floor.
    - 7.7.4.2 Both rear and curbside doors to have opening/closing capability from ground level.
    - 7.7.4.3 All doors to have ability to utilize a padlock.
  - 7.7.5 Lower Curbside Access Doors:
    - 7.7.5.1 Lower rear curbside of van shall be equipped with a swing-up style door.
    - 7.7.5.2 The purpose for this door is to provide ground access and/or vision to/of;
      - 7.7.5.2.1 curbside hose reel assembly and its controls,
      - 7.7.5.2.2 coil blowdown valve (coil water test valve),
      - 7.7.5.2.3 fuel pressure gauge,
      - 7.7.5.2.4 fuel pressure regulating valve,
      - 7.7.5.2.5 steam pressure gauge,
      - 7.7.5.2.6 water pressure gauge,
      - 7.7.5.2.7 steam valve to hose reel(s),
      - 7.7.5.2.8 tachometer for air blower RPM, and
      - 7.7.5.2.9 hydraulic motor control valve.
    - 7.7.5.3 The opening size shall be between 84 and 96 inches in width x 18 inches in height.
    - 7.7.5.4 Additional wall bracing (studs) may be utilized, as long as it/they does/do not interfere with access to hose reel(s), gauges, valves, and controls.

- 7.7.5.5 Door to be capable of being held in an open position by a "prop rod" hinged to door including securing clamp and with inside frame mounted socket or other mechanical device to securely hold door open.
  - 7.7.5.6 The door latch needs to have a positive lock position when closed. A hasp is not acceptable.
- 7.7.6 Lower Rear Access Door:
  - 7.7.6.1 Lower right rear of van's double door shall be equipped with a swing-up style door.
  - 7.7.6.2 The purpose for this door is to provide ground access to the rear hose reel and its controls.
  - 7.7.6.3 The opening size shall be 24 inches in width x 12 inches in height.
  - 7.7.6.4 Door to be capable of being held in an open position by a "prop rod" hinged to door including securing clamp and with inside frame mounted socket or other mechanical device to securely hold door open.
  - 7.7.6.5 The door latch needs to have a positive lock position when closed. A hasp is not acceptable.
  - 7.7.6.6 A sketch showing required door location (same as previous bid) is available upon request).
- 7.7.7 Insulation:
  - 7.7.7.1 All doors shall include minimum one (1) inch thick urethane or styrofoam. This shall be covered with minimum .040 inch thick aluminum, primed and painted (same as interior walls and ceiling).
- 7.7.8 Weatherstripping:
  - 7.7.8.1 All doors to include automotive type, full perimeter.
- 7.8 Access Steps:
  - 7.8.1 To be provided for the curbside door.
  - 7.8.2 Heavy aluminum construction with minimum of three (3) steps.
  - 7.8.3 Approximate dimensions:
    - 7.8.3.1 Width - 36 inches.
    - 7.8.3.2 Riser - 12 inches.
    - 7.8.3.3 Tread - 10 inches.
  - 7.8.4 To be self storing into the van when not in use.
  - 7.8.5 To be self positioned when folded out for use.
  - 7.8.6 Steps to utilize "Safety Grating".

- 7.8.7 A sketch showing required access steps location (same as previous bid) is available upon request).
- 7.8.8 In addition to the curbside door, additional hinges are to be supplied on the right rear of the van body's floor to allow the curbside steps to be removed from the curbside door and position them on the rear of the van body. Also, these should be self storing and self positioning, for temporary use.
- 7.9 Interior:
  - 7.9.1 Walls and ceiling to include 3/4 (0.75) inch thick A/C exterior plywood.
  - 7.9.2 Finish side is to be properly primed and painted with high-gloss white or off-white enamel. This includes walls, ceiling and doors.
- 7.10 Electrical:
  - 7.10.1 12 volt system.
  - 7.10.2 System will be powered by truck's electrical system.
  - 7.10.3 System to be water proof and corrosion resistant.
  - 7.10.4 ICC and DOT approved stop, turn, tail, and clearance lights.
  - 7.10.5 Strobe Light: *WHELEN* Model S360D with amber lens, installed on a bracket just above the streetside rear double door, not protruding above roof line by more than four (4) inches.
    - 7.10.5.1 A sketch showing required location (same as previous bid) is available upon request).
  - 7.10.6 Interior Lighting:
    - 7.10.6.1 To include four (4) each interior ceiling lights, *THIN-LITE* Model #194. An Anchorage dealer for Thin-Lite is L&M Motors, phone: 907-279-5508.
    - 7.10.6.2 To include 3-way switch assembly with one (1) switch located just inside the curbside door and the second switch located on the curbside wall about six (6) inches from the rear double door.
    - 7.10.6.3 Both switches should be approximately 42 inches above floor level.
    - 7.10.6.4 All controls and gauges to be properly lighted for day or night operation (flexible cable night light type lights are not acceptable).
      - 7.10.6.4.1 Area lights, two (2) each, providing adequate lighting to the hose reel and controls.
      - 7.10.6.4.2 Area light, one (1) each, separately switched, located inside and just above the rear van door providing adequate lighting to the hose reel and controls. This light may need to be mounted on a framework above the hose reel.



- 7.10.6.4.3 The switch, controlling these area lights is to be located at the control panel inside the curbside access door.
  - 7.10.6.5 A sketch showing required locations (same as previous bid) is available upon request).
- 7.10.7 Exterior Work Lights:
  - 7.10.7.1 To include two (2) each adjustable work lights with rubber mounted minimum 55 watt sealed halogen bulb.
  - 7.10.7.2 One (1) each located approximately 12 inches rear of curbside door, approximately 12 inches below roofline. The 2nd light to be located on upper curbside rear of door (not to interfere with door opening).
  - 7.10.7.3 Both lights to be controlled from single switch located along side dome light switch inside the van body next to the curbside door.
- 7.10.8 Wiring:
  - 7.10.8.1 Since, for bid purposes, unit is not being installed onto the chassis, all wires are to extend a minimum of four (4) feet from center rear of van body, forward of the step bumper. Wiring to be enclosed in loom shield.
  - 7.10.8.2 All undercarriage wiring to be continuous length and without splices, plug connectors or terminal blocks.
  - 7.10.8.3 All wiring entrance holes in body shall be provided with suitable grommets or bushings and anti-chafing protection.
  - 7.10.8.4 All switches, wire and connectors shall be weatherproof and/or shielded if exposed to wheel splash or excessive moisture and/or dirt.
  - 7.10.8.5 All interior wiring shall be protected by surface mounted conduit routed toward roofline where possible.
  - 7.10.8.6 Wiring entering/exiting the body shall be supported by suitable fasteners spaced to assure adequate attachment to prevent damage to the wires.
- 7.11 Step Bumper:
  - 7.11.1 Heavy duty steel construction, van body bolt-on design, minimum 3/16 (0.1875) treadplate, box type construction, approximately 12 inch depth, approximately 24 inches below van floor level, full width.
- 7.12 Pipe Storage:
  - 7.12.1 To include a heavy duty, minimum 20 gauge steel, rectangular shaped storage bin, approximately 12 inches wide x 5 inches high x 16 foot long.
  - 7.12.2 Forward end of pipe to be butted up against a secured minimum 1/4 (0.25) inch thick plate. Rear to be reinforced, but left open (for storage of 16 foot lengths of 1/2 inch ID galvanized pipe).

- 7.12.3 To be securely mounted in between van body's main frame rails.
- 7.12.4 To include adequate reinforcing on the bottom and sides to prevent distortion.
- 7.12.5 To include a door with corrosion resistant hinge(s) and latch (no hasp).
- 7.13 Mudflaps:
  - 7.13.1 Four (4) each, anti-sail type, for duals, approximately 30 inches in length, with mounting hardware, to be shipped loose.

## 8.0 INSPECTIONS:

- 8.1 If requested by the State, the successful contractor will be required to provide a pilot inspection prior to shipment from final assembly point. The successful contractor will provide the State minimum 30 day notice prior to pilot inspection.
- 8.2 Prior to shipment, representatives of the State will inspect a single **completed unit** for conformance to specifications. The completed unit, component equipment, and accessories shall be inspected and/or tested by the **contractor or contractor's contractor** for compliance with specifications, **prior** to the arrival of the State inspection team. The State reserves the right to appoint an independent inspector at the State's expense to periodically monitor the progression of the unit during the manufacturing process.
  - 8.2.1 Since this unit being purchased will not be equipped with a power or fuel source, actual testing of the working unit will not be accomplished until a unit is physically installed onto a State truck by State personnel. Payment(s) will not be held up for this final testing.
- 8.3 The contractor shall provide full access to the State's inspector(s) or their designee(s) to the plant(s) including the plant(s) subcontractors where manufacture is taking place.
- 8.4 These inspections by the State shall be thorough and very critical, and will encompass a complete review of the specifications. Adequate time and technical personnel shall be made available to assist the State in these inspections.
- 8.5 Inspection Trip Costs (**If not in the Anchorage area**): Contractor will supply round trip coach "Y" full airfare (not supersaver), **with open arrival and departure times**, for two (2) inspectors to the manufacturer's plant. Both inspectors will depart from Anchorage.
  - 8.5.1 Per diem for each of the two (2) inspectors shall be at a rate of \$120.00 per day each.
  - 8.5.2 The successful vendor shall assist by booking lodging reservations. Meals and lodging will be paid by the State inspectors.

- 8.5.3 The successful vendor shall arrange and furnish all ground transportation necessary to conduct the inspection with up to two (2) vehicles (one [1] for the Contracting Authority representative and one [1] for the maintenance personnel).
- 8.5.4 While the State recognizes contractual responsibility in testing, the State reserves the exclusive right to reduce the number of inspectors when and if that action seems prudent. If the number of inspectors is reduced, the Contractor will return to the State all monies saved by that action within 30 days following the actual inspection.
- 8.6 It shall be the responsibility of the State inspector(s) to technically inspect and test the unit for compliance with the specifications.
- 8.7 It shall be the responsibility of the Contracting Authority Representative to observe the inspection and test to assure compliance with the published terms, conditions, and specifications of the bid, and to mediate any disputes which may arise between the manufacturer and the Department of Transportation's representatives.
- 8.8 FINAL ACCEPTANCE REMINDER: Final acceptance is at final destination; however, all major tests will be conducted at the manufacturer's place of business unless the State has reason to believe alterations or damages have taken place which may have changed the performance or design characteristics of the unit since the time of inspection at the manufacturer's location.
  - 8.8.1 A final inspection of the unit will be conducted at FOB point to assure that the unit still meets specifications.

## **9.0 MISCELLANEOUS:**

- 9.1 The steam generator, hose reel assembly(s), and water tank, to be installed in the van body and to include all lines, hoses, valves, connectors, etc., to provide a safe, practical and functional installation which will meet OSHA, Federal, and State safety standards.
  - 9.1.1 A layout sketch showing desired arrangement and installation of equipment (same as previous bid) is available upon request).
  - 9.1.2 Control panel and hose reel area to include space for, at the rear of the van body (refer to included layout sketch), for ground access to:
    - 9.1.2.1 each hose reel assembly,
    - 9.1.2.2 coil blowdown valve (coil water test valve),
    - 9.1.2.3 fuel pressure gauge,
    - 9.1.2.4 fuel pressure regulating valve,
    - 9.1.2.5 steam pressure gauge,
    - 9.1.2.6 water pressure gauge,
    - 9.1.2.7 steam valve to hose reel,
    - 9.1.2.8 air blower tachometer,
    - 9.1.2.9 hydraulic motor control valve, and

- 9.1.2.10 walkway space to steam generator.
- 9.2 Operating Instructions:
  - 9.2.1 To be stick-on, durable, non-run ink. Black printing on a white background.
  - 9.2.2 To be located on inside of access door.
  - 9.2.3 To include one (1) additional set, shipped loose.
- 9.3 All switches, gauges, and controls to be properly identified by engraved type identification labels.
  - 9.3.1 DYMO type tape labels are not acceptable.
  - 9.3.2 Stick-on tape labels are not acceptable.
- 9.4 Vandalism Protection:
  - 9.4.1 All doors are to be lockable.
  - 9.4.2 If padlocks are utilized, they shall be keyed alike.
  - 9.4.3 Three (3) sets of keys, minimum, to be provided.
- 9.5 Paint: Manufacturer's standard color.
- 9.6 Warranty: At assigned location per Section V - Special Terms and Conditions.
- 9.7 Publications: To include parts, service, and operator's manual, per Section III - Special Terms and Conditions. See Section V - Bid Price Schedule for quantities.
- 9.8 **Factory Training and Delivery:**
  - 9.8.1 Prior to the unit being placed "in service" the vendor shall provide a "Qualified" Factory Field Technician(s) to make all necessary adjustments to the unit and give instruction to operators and maintenance personnel.
  - 9.8.2 A minimum of one (1) day of operator plus a minimum of one (1) day maintenance training will be given at both an Anchorage and a Fairbanks location. The dates will be set up between the vendor and the regional equipment managers of these areas.

END OF SPECIFICATION #570